**2013-2014 Microeconomics Curriculum**

**Course Description**:

This full year Microeconomic course is designed to mirror a typical introductory Microeconomic college course. Students will learn and integrate key concepts in Microeconomics, which is the study of the theoretical action and interaction of consumers and suppliers in a world of finite resources.

Through objective and subjective tests as well as in- and out-of-class activities, students will gain an understanding of the key concepts of basic economic theory as well as its limitations in a constantly changing economy. Students will develop a broad understanding of the application of social science models using theories, models, graphs and mathematical formulas as tools to better understand how our economy works at the microeconomic level. While microeconomics is a theoretical social science, students will apply microeconomic theory to real world situations to gain a better understanding of how our economy works as well as the limitations of economic and social science models.

Students will examine and analyze various models including the Production Possibility Curve and develop an understanding of the critical aspects of specialization and trade focusing on the concept of Comparative Advantage as opposed to Absolute Advantage. In doing so, students will examine current trade theory including game theory, as well as examine the main arguments in favor and against international trade organizations, such as the WTO, EC and NAFTA.

Students will study and examine the concept of markets, free and otherwise. Students will gain an understanding of Supply and Demand Curves, for the individual and in the aggregate. Moreover the course will analyze how Demand curves are derived focusing on consumer behavior, with key concepts such as the law of diminishing marginal utility and demand elasticity. Thereafter the course will analyze how Supply curves are derived, focusing on supplier behavior with key concepts such as the short run v. the long run, cost curves, the law of diminishing marginal returns and supply elasticity. Putting supply and demand curves together, the course will examine the efficiency of different types of markets, including, perfect competition (agricultural products), monopolistic competition (brand name competition), oligopolistic competition (consolidating markets such as; airline and oil industries) and monopolies (government regulated and otherwise). The course will also review resource markets, such as labor and resource markets, to gain an understanding of wage and employment markets (free and otherwise) as well as resource markets (oil and other resources).

Lastly, the course will analyze and review market failures and government regulation reviewing key concepts such as spillover effects, externalities, transparency and moral hazard. Students will develop an understanding of attempts to create markets in such much talked about areas as crime prevention, pollution control and the greenhouse effect.

**Attendance and Behaviour Policy**

Three (3) tardies equal an unexcused absence (in general 15 minutes late or more will be counted as an absence NOT a tardy) and Three (3) unexcused absences may result in your taking this course over again. If you are asked to leave the missed class will be treated as an unexcused absence. One excused absence will cause a 3 point loss in your average and a Second unexcused absence a 10 point loss in your average. Please be on time. If you miss a test you are expected to complete the test during your free period or lunch the next day. For each day that you delay completing the test or handing in an assignment you will receive the loss of one full grade on that paper/test for the first day and 1/3rd of a grade for each day thereafter.

**2013 Addendum- PDAs- MP3s/Cellphones and other electronic equipment.** Please store all electronic equipment including headphones/earbuds prior to the beginning of class. Cellphones should be off, if your phone unexpectedly rings during class simply turn it off. If this is a regular problem than the phone will be confiscated. If you are found to be using your electronic equipment during class, you will be given an unexcused absence for the day (see above) and the electronic equipment will be taken from you, a parent or guardian can come in to collect the device. CONTINUOUS DISRUPTIONS MAY ALSO LEAD TO LOSS OF CREDIT

**Readings**:

Text: McConnell, Campbell R. and Stanley Brue and Sean Flynn, *Economics, Principles, Problems and Policies*, New York, New York: McGraw-Hill Irwin, 2009

Supplemental Materials:

Buchholz, Todd G. and Martin Feldstein, *New Ideas from Dead Economists,* Penguin Books, 1989

Dubner, Stephen J and Steven D. Leavitt, *Freakonomics,* New York, New York: HarperCollins, 2005

New York Times, Freakonomics Blog and Business section

Other contemporary periodicals

**Course Units (13 Course Units—32 weeks)**

1. Introduction to Economics (2 weeks)- Overview
   1. Economics as a Social Science
      1. Limits of Behavioral Science
         1. Economic Analysis- Constructing Economic Models and Paradigms
            1. Ceteris Paribas
         2. Analyzing Incremental Change versus Totals
         3. Graphing economic models
            1. Marginal Analysis, Slopes
         4. Budget Lines, Opportunity Costs and Production Possibility Curves
         5. Comparative Advantage and Production Possibility Curves

**Assignment**:

Reading: Chapter 1, *Economics p.* 1-19, Chapter 1 Appendix p. 22-26

Answer Key Questions in Study Guide on p.20-21, and key questions, p. 27 and 28

*Freakonomics*- Children’s names and educational attainment, correlation or causation.

**Activities**

Graphing Budget Lines

Evaluating and determining slopes and their relationship with Marginal Analysis

Exercises in Production Possibility Curves

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **Understanding the Circular Flow: Relationship between Household, Production and Government** (2 weeks) (4)
   1. Consumer Sovereignty and Capitalist Economies
      1. Adam Smith and *The Wealth of Nations*
      2. Assumptions on Human Behavior- self-interest
      3. Specialization versus Generalist
      4. Creative Destruction and the Invisible Hand
         1. Applications in *Creative Destruction*
      5. Limits of the Market System
         1. Public v. Private Goods
         2. Price as the allocating factor
         3. Apportionment of Healthcare and other contemporary issues in the Market Economy
   2. Government and Command Economies
      1. Examination of the Cuban Economy (Solman Video series)
      2. Production goals versus Consumer Sovereignty
      3. Over and undersupply of resources, inefficiencies in the Command Economy System

**Assignment**

Economics chapter 2, pp 2-42 , key questions p43-44

Readings on Adam Smith, Public versus Private Goods, Specialization and the Invisible Hand

**Activities**

Review of Questions and readings

Freakonomics Blog- Why do we grow Tomatoes and knit sweaters?

Solman Video

Excerpts from movie *Wall Street-* Gordon Gekko

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C3- Factor Markets

C4- Market Failure and the role of Government

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **The ABC’s of Economics, Market Demand, Supply and Equilibrium (2 weeks** (2 weeks) (6)
   1. Law of Demand
      1. Relationship between Price and Quantity Demanded
      2. Graphing
      3. Assumptions
      4. Shifting the Demand Curve
   2. Law of Supply
      1. Relationship between Price and Quantity Supplied
      2. Graphing
      3. Assumptions
      4. Shifting the Supply Curve
   3. Equillibium—ahhhhh
      1. Plotting Demand and Supply Curves (graphing)
      2. Equilibrium Price and Quantity
      3. Shifting the Curves and changes in Pe and Qe
      4. Rationing Effect
         1. Consumer Surplus
         2. Supplier Surplus
         3. Graphing
   4. Distortions of the Market System
      1. Government involvement
      2. Rationing, Price Ceilings, and Price Floors
      3. Private Attempts to “corner or manipulate the market”
         1. Hunt Brothers- Silver Hording 1980s
         2. Tech Bubble 1998-2000
         3. Enron- Electricity 2001
         4. Gas Prices Summer 2008

**Assignment**

Reading, Economics Chapter 3, pp45-62 and Chapter 3 appendix pp.66-70

Key Questions pp. 63-65 and pp70-71

**Activities**

Freakonomics discussion

Drug dealers and living at home

Sumo Wrestlers and winning

Teachers and standardized exams

Presentations on “Private Attempts to corner or manipulate the market (d i-iii) above

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C3- Factor Markets

C4- Market Failure and the role of Government

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **Consumers, How do they decide? Substitutes, Complement and Income (2 weeks)** (14)
   1. Reviewing the determinants of the demand curve and shifts in the demand curve
   2. Graphing demand curves and their shifts
   3. Understanding the concept of elasticity- responsiveness of consumers to changes of the ceteris parabus assumptions
   4. Quantitative analysis substitutes, complement and income elasticity using mathematical equations
   5. Effect of elasticity on the Marginal and Total Revenue Curves
      1. Short run versus Long run Changes
   6. Reviewing Consumer and Producer Surplus
      1. Efficiency Losses
   7. Examining and applying elasticity to real work applications

**Assignment**:

Reading: Chapter 6, *Economics pp.* 113-130,

Answer Key Questions pp. 132-133

Contemporary articles on products in the “real world”

**Activities**

Graphing Demand Curves and their interaction and sensitivity

Evaluating and determining slopes and their relationship with Marginal Analysis

Presenting and analyzing hypothetical demand curves for real world products in the news (eg. Blackberry’s versus Apple I-Phones)

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **Consumer Behavior – Utility and Satisfaction, How to maximize (3 weeks (17)**
   1. Understanding the underpinnings of economics, the rational actor
      1. Law of Diminishing Marginal Utility
         1. Total Utility versus Marginal Analysis
      2. Marginal Utility and the Price of Goods- How the Rational Consumer decides what to buy
         1. Mathematically applying Marginal Utility and Price
      3. Indifference Curves
         1. Basic Assumptions underlying Indifference Curves
         2. Graphing Indifference Curves
         3. Deriving Indifference Curves
      4. Assessing the Substitute and Income Effect of a price change in a product.

**Assignment**:

Reading: Chapter 7, *Economics p.* 134-144, Chapter 7 Appendix p. 147-152

Answer Key Questions in Study Guide on p.144-146, and key questions, p. 152-153

Growing Tomatoes versus Buying, Freakonomics Blog, NY Times

**Activities**

Examples of the Law of Diminishing Marginal Utility

Graphing Budget Lines

Evaluating and determining slopes and their relationship with Marginal Analysis

Exercises in Production Possibility Curves

Evaluating and determining the substitute versus income effect

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

**ANTICIPATED END OF 1ST SEMESTER MATERIAL**

1. **The Other Side, Costs of Production (3 weeks) (20)**
   1. Understanding the concept of Normal Profits versus Accounting Profit
      1. Explicit and implicit costs
   2. Inputs of Production
      1. Short Run versus Long Run analysis
         1. Analyzing Fixed versus Variable costs
   3. The Short Run and the Law of Diminishing Marginal Returns
   4. Developing and Analyzing Total Product and Marginal Product curves
      1. Review the relationship between the slope of a curve and marginal analysis
   5. Shifting from “product” to costs
      1. Understanding a Cost table
         1. Fixed Costs
         2. Variable Costs
         3. Total, Average and Marginal Costs
   6. Graphing Cost Curves
      1. Analyzing the relationship between Total, Average and Marginal Cost Curves
   7. Long Run Cost Curves
      1. Economies of Scale
         1. Understanding, applying and analyzing Long Run Average Total Cost Curves
   8. Application of Cost Curves to the real “world”

**Assignment**:

Reading: Chapter 8, *Economics p.* 154-173, Answer Key Questions in Study Guide on p.174-175,

**Activities**

Presenting and understanding the Law of Diminishing Marginal Returns

Tables, Plotting and Graphing production curves

Evaluating and determining slopes and their relationship with Marginal Analysis

Tables, Plotting and Graphing Cost Curves

Short Run v. Long Run- The Real World- Presentations and Examples of Short Run v. Long Run Production Curves

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C3- Factor Markets

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **Markets - Connecting the dots---or the graphs, applying Revenue and Costs Curves** **(4 weeks chapters 9 through 11) (24)**
   * 1. Overview of the different type of markets
   1. Purc Competition (1 weeks)
      1. Factors leading to Pure Competition
      2. Reviewing and graphing Total, Average and Marginal Revenue Curves with a perfectly elastic demand Curve
      3. Applying and graphing Cost Curves onto the Revenue Curve graph
      4. Analyzing the interaction between Cost and Revenue Curves to assess production points and profit
         1. Evaluating when to stay in business when earning less than a normal profit
      5. Long Run Cost Curves under Perfect Competition
         1. Constant, Increasing and Decreasing Cost Curves
      6. Analyzing Producer and Consumer Surplus
         1. Allocative Efficiency and Production Efficiency

**Assignment**:

Reading: Chapter 9, *Economics p.* 176-197,

Answer Key Questions in Study Guide on p.20-21, and key questions 198-199

**Activities**

Graphing Cost and Revenue Curves

Identifying Production and Profit maximization and Loss minimization curves

Analyzing and Evaluating Pure Competition in Commodity Markets

* 1. **Pure Monopoly (1 week**)
     1. Factors leading to Pure Monopoly
        1. Barriers to Entry legal and illegal
     2. Reviewing and graphing Total, Average and Marginal Revenue Curves with an elastic demand Curve- Price does not equal MR
     3. Applying and graphing Cost Curves onto the Revenue Curve graph
     4. Analyzing the interaction between Cost and Revenue Curves to assess production points and profit
        1. Evaluating when to stay in business when earning less than a normal profit
     5. Long Run Cost Curves under Pure Monopoly
        1. Constant, Increasing and Decreasing Cost Curves
     6. Analyzing Producer and Consumer Surplus
        1. Allocative Efficiency and Productive Efficiency
     7. Government and anti-Trust legislation

**Assignment**:

Reading: Chapter 10, *Economics p.* 201-220,

Answer Key Questions in Study Guide pp. 220-221

**Activities**

Tables, Plotting and Graphing Cost and Revenue Curves

Identifying Production and Profit maximization and Loss minimization curves

Evaluating Pure Monopoly in the “Real World”- Historical View, Standard Oil to Microsoft

1. **Monopolistic and Oligopolistic Competition (2 weeks)** 
   * 1. Factors leading to Monopolistic and Oligopolistic Competition
        1. Barriers to Trade
     2. Reviewing and graphing Total, Average and Marginal Revenue Curves with an elastic demand Curve- Price does not equal MR
        1. Kinked demand Curves and Oligopolistic Competition
     3. Applying and graphing Cost Curves onto the Revenue Curve graph
     4. Analyzing the interaction between Cost and Revenue Curves to assess production points and profit
        1. Evaluating when to stay in business when earning less than a normal profit
     5. Long Run Cost Curves under Monopolistic and Oligopolistic Competition
        1. Constant, Increasing and Decreasing Cost Curves
     6. Analyzing Producer and Consumer Surplus
        1. Allocative Efficiency and Productive Efficiency
     7. Government and Oligopolies

**Assignment**:

Reading: Chapter 11, *Economics p.* 222-243,

Answer Key Questions in Study Guide pp. 244-245

**Activities**

Tables, Plotting and Graphing Cost and Revenue Curves

Identifying Production and Profit maximization and Loss minimization curves

Evaluating Monopolistic and Oligopolistic Competition in the “Real World”-

Brand Name Competition- Horizontally and Vertically Oriented Businesses

Oligopolistic Competition- generic products (airline seats) versus differentiated products (airbus v. boeing), government involvement in Oligopolies

Game Theory- Presentations- Prisoner’s Dilemma, Iterated Games

**Advance Placement Curricular Requirements Goals Met (Chapter 9-11)**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C4- Market Failure and the role of Government

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6- How to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **Factor Markets (2 weeks) (26)**
   1. **Resources** (1 week)
      1. Demand For Resources
         1. Understanding the assumptions
         2. Deriving the Demand Curves for Resource Markets
         3. Quantitative analysis of marginal revenue product and costs
      2. Effects of Changes in the Model
         1. Technology, Substitute and Complements
      3. Elasticity
         1. Quantitative analysis of elasticity in Resource Markets
      4. Profit Maximizing and the Least Cost Rule

**Assignment**:

Reading: Chapter 12, *Economics p.* 246-267,

Answer Key Questions in Study Guide pp. 267-269

**Activities**

Tables, Plotting and Graphing Resource Demand Curves

Evaluating and analyzing MRP and MRC

Manipulating the Curves, changes in Assumptions

Real World analysis of Factor Markets and their elasticity

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C3- Factor Markets

C4- Market Failure and the role of Government

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

* 1. **Wages (1 week)**
     1. Understanding the relationship between Wages and Productivity
        1. Nominal v Real Wages
     2. Purely Competitive Markets v Monopsony
     3. Reviewing Marginal Productivity of Labor and Marginal Costs
     4. Market imperfections in the Labor Market Model
        1. Unions and Government
        2. Other factors leading to Market Imperfections

**Assignment**:

Reading: Chapter 13, *Economics p.* 270-288, Chapter 13 Appendix 288-294

Answer Key Questions in Study Guide pp. 288-289 and Appendix 294-295

Contemporary Articles on Wages and Government Restrictions

**Activities**

Tables, Plotting and Graphing Wage- MRC and MRP Curves

Manipulating the Curves, changes in Assumptions

Real World analysis of Wage Determination- Debate on Ethics and Pay and Labor Unions

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C3- Factor Markets

C4- Market Failure and the role of Government

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **Public versus Private Good- Externalities- Bringing the Public Domain into the Private (2 weeks) 28**
   1. Public v Private Goods
      1. Positive Externalities and the Free Rider Problem
      2. Negative Externalities and paying the price
   2. Characteristics of Private v Public Goods
   3. Quasi Public Goods
   4. Assessing and Evaluating attempts to correct externalities
      1. Cost-Benefit Analysis
   5. Moral Hazard and socializing risk

**Assignment**

Readings Economics Chapter 16 pp. 334-354

Key Questions 354-355

Contemporary Readings on Externality Issues

**Activities**

Debating and Discussing Contemporary Issues

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C4- Market Failure and the role of Government

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **Contemporary Microeconomic Issues 2 weeks (30)**
   1. Analyzing and Presenting issues on Health Care, Immigration, Agriculture and other current issues facing the United States
      1. Group Presentations from selected chapters and outside readings in Current Economic Issues

**Assignment**:

Students will make group presentations analyzing and evaluating contemporary economic issues using selected textbook and outside readings.

**Activities**

Group will prepare and present on the economics of contemporary microeconomic issues and the United States

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C3- Nature and Function of Labor Markets

C4- Market Failure and the role of Government

C5 - Understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 - How to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **The US Economy- Basic Macroeconomics** (3 weeks (9))
   1. Market Economies and Government
   2. Revisiting the Circular Flow
   3. US Economy as a whole (GDP)
      1. Consumption, Government Spending, Investment and Exports minus Imports
   4. Households
      1. Consumption- Spending
      2. Taxes and Saving
      3. Factors influencing the above
   5. Business
      1. Investment
      2. Capital Goods
      3. Factor Markets
      4. Factors influencing the above
   6. Government
      1. Spending
      2. Expenses versus Revenue
      3. Deficits and Debt
      4. Keynesian Economics versus Say’s Theory
      5. State and Local Government
   7. Contemporary Issues
      1. Recession versus Depression
      2. Unemployment
      3. Inflation
      4. Government Stimulus

**Assignment**

Readings, Economics Chapter 4, pp 72-88

Key Questions pp. 89-90

Readings: Post September 11th reading on American Consumption- NY Times Magazine

2007 to Present readings on Consumption, Investment and Government Spending

Review of 2009 Government Stimulus

**Activities**

Review and application of Commerce Department and Labor Department statistical information

Preparing tables and plotting graphs with reference to GDP and its components, Inflation and Unemployment

Discussion on stagflation of 1970s, cost-push and demand pull inflations and the current recession.

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C3- Factor Markets

C4- Market Failure and the role of Government

C5 - Understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6 - How to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **The US and international Trade (3 weeks) (12)**
   1. Examination of US and International Trade
      1. US role in International Trade
         1. Percent of US Economy
         2. Exports
         3. Imports
         4. Balance of Trade
         5. Financing Deficits
   2. David Ricardo and the Law of Comparative Advantage
      1. Benefits of Specialization
         1. Understanding the difference between absolute versus comparative advantage
         2. Application and analysis of CA
         3. Revisiting Production Possibility Curves
   3. Mercantilism versus Free Trade Theory
      1. History
         1. 17th Century France and 20th Century Post WW2 World
      2. Graphical Analysis
      3. Government limits on Imports/Exports
         1. Tariffs, Subsidies and Non-Tariff Barriers
      4. Trade Agreements
         1. GATT-WTO
         2. Bretton Woods- Currency and Gold Today
         3. Regional Trading Blocs
            1. EU
            2. NAFTA
         4. Impact of Trade on US and the World
            1. Contemporary Issues

Capital Flows

Currency

Jobs and Outsourcing

* + - * 1. Game Theory and International Trade

Cheating and the Prisoner’s Dilemma

**Assignment**:

Reading: Chapter 5, *Economics p.* 91-109,

Key Questions in Study Guide on p.110-11

Reading: New Ideas from Dead Economists- David Ricardo

**Activities**

Analysis of International Trade Agreements

Debate

Solman Video

Movie: *Beautiful Mind* and Game Theory

Game Theory application

**Advance Placement Curricular Requirements Goals Met**

C1- Basic Economic Concepts

C2- Nature and Function of Product Markets

C4- Market Failure and the role of Government

C5 - understanding of economic decision making and its factors, such as marginal analysis and opportunity costs.

C6- how to generate, interpret, label, and analyze graphs, charts, and data to describe and explain economic concepts.

1. **Project- Macroeconmics, International Economics or further studies in Micro**
2. **Study for the AP Exam 2 weeks**
3. **Post Exam- to be determined.**

**Student Evaluation**

**Tests will be given after each unit- approximately 3 to 4 tests per quarter**.

Subjective Tests- Multiple Choice questions (30-40%)

Objective Tests- Problem sets (20-25%)

Homework (10-15%)

Projects (10-20%)

Participation (up to 10%)

Semester Exam-

1st Semester Exam First 8 to 9 Units of the Course- Similar in style and content to an APExam 2 hour exam

2nd Semester Exam, cumulative from the beginning of the Course

2 hour exam

Semester Grades- 40% for each Quarter, 20% Semester Exam